UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,370	10/20/2003	Chuxin Chen	28787.70	2855

27683   7590   11/28/2007

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ART UNIT	PAPER NUMBER
2863	

MAIL DATE	DELIVERY MODE
11/28/2007	PAPER

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PTOL-90A (Rev. 04/07)

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/689,370
Filing Date: October 20, 2003
Appellant(s): CHEN ET AL.

Brandi W. Sarfatis
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed September 5, 2007 appealing from the Office

action mailed December 13, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

This appeal involves claims 1-20.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

1) U.S. Pat. No. 5,999,179   Kekic et al.   12-1999

2) U.S. Pat. No. 6,892,317   Sampath   5-2005

3) U.S. Pat. No. 5,210,704   Husseiny   5-1993

4) U.S. Pat. No. 5,678,042   Pisello et al.   10-1997

5) U.S. Pat. No. 6,225,999   Jain et al.   5-2001

6) U.S. Pat. No. 5,761,432   Bergholm   6-1998

7) U.S. Pat. No. 6,668,241   Chen et al.   12-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Double Patenting

1.   The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2.   Claims 1-9 are rejected under the judicially created doctrine of obviousness-type

double patenting as being unpatentable over Chen et al. (U.S. Patent No. 6,668,241,

hereinafter '241) in view of Husseiny (U.S. Patent No. 5210704). Both references deal

with essentially the same method and system for monitoring equipment in a

telecommunications network, as shown in Table 1 below:

Table 1

#10/689,370 claims	#US 6,668,241 B2 claims
1. A system for monitoring equipment in a telecommunications network, the system comprising: a monitor set including at least one of either a subset of the equipment, a review period, or a configuration for the equipment; a plurality of rules related to the monitor set, <u>wherein the rules include at least one rule usable to predict exhaustion of the equipment;</u> means for obtaining data related to the monitor set; and a program for creating one or more analytical reports about the monitor set based on the rules and the data, wherein the analytical report includes a prediction of exhaustion of the equipment, wherein the program includes: an inference engine having instructions for retrieving the data from a data layer of an inventory retrieval system, determining if a match exists between the data and one or more of the rules, if a match exists, firing the rule on the data to produce an analysis and formatting the analysis into the analytical reports.	1. A system for monitoring equipment in a telecommunications network, the system comprising: a monitor set including at least one of either a subset of the equipment, a review period, or a configuration for the equipment; a plurality of rules related to the monitor set; means for obtaining data related to the monitor set; and a program for creating one or more analytical reports about the monitor set based on the rules and the data, wherein the program comprises: an inference engine comprising instructions for retrieving the data from a data layer of an inventory retrieval system, determining if a match exists between the data and one or more of the rules, if a match exists, firing the rule on the data to produce an analysis, and formatting the analysis into the analytical reports, and wherein at least one of the analytical

	reports is in the form of a job justification story. 2. A computer program ..... 7. The computer program of claim 2 wherein at least one of the analytical reports indicates a predicted exhaust condition.
2. The system of claim 1 wherein the at least one rule usable to predict exhaustion of the equipment includes a projected lifetime of the equipment.	
3. The system of claim 2 wherein the at least one rule usable to predict exhaustion of the equipment includes a capacity of the equipment.	9. The computer program of claim 7 wherein the predicted exhaust condition is in the form of a demand and capacity chart.
4. A method for monitoring equipment in a telecommunications system and predicting when the equipment will be exhausted, the method comprising: selecting a configuration for the equipment; defining a review for the selected configuration, the review identifying one or more rules usable to calculate exhaustion of the equipment; obtaining equipment related data using a separate inventory system; requesting the retrieval of the obtained data for the defined review so that the data can be compared to the one or more rules; and receiving a comparison of the data and the review.	4. The computer program of claim 2 ..... 5. The computer program of claim 4 wherein the third interface portion allows the user to select a configuration for the equipment from a list of predetermined possible configurations.
5. The method of claim 4 wherein identifying the one or more rules usable to calculate exhaustion of the equipment includes identifying at least one of a	

lifetime of the equipment and a capacity of the equipment.	
6. The method of claim 4 wherein the review further identifies a review interval and/or a notification preference and wherein the data can also be compared to the review interval and/or the notification preference.	4. The computer program of claim 2 wherein the user interface provides a display screen comprising: . . . . . . a second interface portion for allowing the user to select a review period; and . . . . . . 8. The computer program of claim 7 further comprising a remote notification program interface for reporting at least one of the analytical reports to the user through an automatic email operation.
7. The method of claim 4 wherein the configuration is selected from a list of predetermined possible configurations.	5. The computer program of claim 4 wherein the third interface portion allows the user to select a configuration for the equipment from a list of predetermined possible configurations.
8. The method of claim 4 wherein identifying one or more rules comprises: selecting a rule from a rule tree according to a rule set definition, the rule comprising an antecedent and a consequent; and modifying either or both of the antecedent and the consequent of the selected rule.	6. The computer program of claim 2 wherein the user interface provides a display screen comprising: a first interface portion for allowing the user to select a rule from a rule tree according to a rule set definition, the rule comprising an antecedent and a consequent; and a second interface portion for allowing the user to modify either or both of the antecedent and the consequent of the selected rule.
9. The method of claim 4 further comprising receiving the comparison as an analyzed conclusion provided through an email operation.	8. The computer program of claim 7 further comprising a remote notification program interface for reporting at least one of the analytical reports to the user through an automatic email operation.

Table 1 shown above lists the literal difference between the claims 1, 3, 4 and 6-9 in the instant application (hereinafter '370) and the claims 1, 2 and 4-9 in '241. It is obvious that the '241 patent discloses the claimed invention recited in claims 1, 3, 4 and 6-12 of '370 except the limitations in claims 2 and 5 and the underlined portion in claims 1, 4 and 6.

The teaching of Husseiny includes: a rule-based monitoring expert system, wherein the rules include at least one rule usable to predict exhaustion of the equipment (col. 6, lines 9-19; col. 16, lines 38-56); wherein at least one rule usable to predict exhaustion of the equipment includes a projected lifetime of the equipment (col. 6, lines 9-19; col. 16, lines 38-56; col. 21, lines 14-41); defining a review for the selected configuration, the review identifying one or more rules usable to calculate exhaustion of the equipment (cols. 14-15, lines 64-10; col. 16, lines 38-55; col. 18, lines 3-19); obtaining equipment related data using a separate inventory system (col. 13, lines 8-30; col. 18, lines 23-27); requesting the retrieval of the obtained data for the defined review so that the data can be compared to the one or more rules (col. 13, lines 8-30; col. 18, lines 23-53); and receiving a comparison of the data and the review (col. 13, lines 31-35; col. 18, lines 23-53); wherein identifying the one or more rules usable to calculate exhaustion of the equipment includes identifying at least one of a lifetime of the equipment and a capacity of the equipment (col. 6, lines 9-19; col. 16, lines 38-56; col. 21, lines 14-41); and, wherein the review further identifies a review interval and/or a notification preference and wherein the data can also be compared to the review

interval and/or the notification preference (cols. 10-11, lines 62-18; cols. 14-15, lines 64-2).

It would have been obvious to one having ordinary skill in the art at the time was made to include the teachings of Husseiny in the invention of '241 in order to provide a better rule-based monitoring expert system that is capable of examining the predictability of the system for predicting future trends and estimates of remaining life of an equipment based on statistical and model data analyses (Husseiny, Abstract; col. 6, lines 9-19; col. 16, lines 38-56).

3.   Claims 10-12 and 18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 7 and 9 of U.S. Patent No. 6,668,241 B2 to Chen et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because they essentially claim patentably the same invention, as shown in Table 2 below.

Table 2

#10/689,370 claims	#US 6,668,241 B2 claims
10. A system for monitoring equipment in a telecommunications network, the system comprising: a monitor set including at least one of either a subset of the equipment, a review period, or a configuration for the equipment; a plurality of rules related to the monitor set, wherein at least one rule enables a prediction of equipment exhaustion;	1. A system for monitoring equipment in a telecommunications network, the system comprising: a monitor set including at least one of either a subset of the equipment, a review period, or a configuration for the equipment; a plurality of rules related to the monitor set;

means for obtaining data related to the monitor set; and a program for creating one or more analytical reports about the monitor set based on the rules and the data, wherein at least one of the analytical reports details a relationship between demand and capacity for at least a portion of the equipment.	means for obtaining data related to the monitor set; and a program for creating one or more analytical reports about the monitor set based on the rules and the data, wherein the program comprises: an inference engine comprising instructions for retrieving the data from a data layer of an inventory retrieval system, determining if a match exists between the data and one or more of the rules, if a match exists, firing the rule on the data to produce an analysis, and formatting the analysis into the analytical reports, and wherein at least one of the analytical reports is in the form of a job justification story. 2. A computer program for monitoring ...... 7. The computer program of claim 2 wherein at least one of the analytical reports indicates a predicted exhaust condition.
18. The system of claim 10 wherein the at least one rule usable to predict exhaustion of the equipment includes a capacity of the equipment.	9. The computer program of claim 7 wherein the predicted exhaust condition is in the form of a demand and capacity chart.
11. The system of claim 10 further comprising a graphical user interface for receiving additional rules from a user and for providing the additional rules to the program.	2. A computer program for monitoring at least one piece of equipment in a telecommunications network, the computer program comprising: a user interface for receiving one or more rules from a user and for providing one or more analytical reports of the equipment based on the rules; ......
12. The system of claim 10 wherein the program comprises	1. A system for monitoring equipment in a telecommunications network, the system comprising:

	... ...
	a program for creating one or more analytical reports about the monitor set based on the rules and the data, wherein the program comprises:
an inference engine comprising instructions for retrieving the data from a data layer of an inventory retrieval system, determining if a match exists between the data and one or more of the rules, if a match exists, firing the rule on the data to produce an analysis, and formatting the analysis into the analytical reports,	an inference engine comprising instructions for retrieving the data from a data layer of an inventory retrieval system, determining if a match exists between the data and one or more of the rules, if a match exists, firing the rule on the data to produce an analysis, and formatting the analysis into the analytical reports, and wherein at least one of the analytical reports is in the form of a job justification story.
	2. A computer program .....
wherein the analytical report includes a prediction of equipment exhaustion.	7. The computer program of claim 2 wherein at least one of the analytical reports indicates a predicted exhaust condition.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Kekic et al. (U.S. Pat. No. 5999179) in view of Sampath et al. (U.S. Patent No.

6892317).

Regarding claim 1, Kekic et al. teach a system for monitoring equipment in a

telecommunications network (see abstract), the system comprising: a monitor set

including at least one of either a subset of the equipment (col. 6, lines 14-39), a review

period (col. 18, lines 19-32 and col. 20, lines 19-21), or a configuration for the

equipment (col. 46, lines 36-52); a plurality of rules related to the monitor set (col. 23,

lines 63-67 and col. 24, lines 20-28); means for obtaining data related to the monitor set

(col. 8, lines 16-41; col. 15, lines 49-67; col. 18, lines 12-32, lines 45-55; col. 19, lines 1-

7; col. 28, lines 6-8 and col. 36, lines 15-27); and a program for creating logging of

pertinent information about the monitor set based on the rules and the data (cols. 7-8,

lines 61-41; cols. 27-28, lines 44-8); said program comprises: an inference engine

having instructions for retrieving the data from a data layer of an inventory retrieval

system (col. 3, lines 9-28; col. 16, lines 55-60; col. 18, lines 12-32, lines 45-55; col. 19,

lines 1-7), determining if a match exists between the data and one or more of the

plurality of rules and selectively firing the rule on the data to produce an analysis, and to

create said logging (col. 8, lines 16-41 and col. 36, lines 15-27).

Kekic et al. do not mention expressly that: said rules include at least one rule

usable to predict exhaustion of the equipment; said logging of pertinent information

includes one or more analytical reports, wherein the one or more analytical reports

include a prediction of exhaustion of the equipment;

Sampath et al. teach rule-based systems and methods for failure prediction and diagnosis of electronic equipments in a network environment (Abstract), wherein the rules include at least one rule usable to predict exhaustion of the equipment (col. 6, lines 29-57); and a program for creating one or more analytical reports about a monitor set based on the rules and data related to the monitor set, wherein said one or more analytical reports include a prediction of exhaustion of the equipment (col. 6, lines 29-46; col. 9, lines 4-30).

It would have been obvious to one having ordinary skill in the art at the time was made to include the teachings of Sampath et al. in the invention of Kekic et al. in order to provide a better rule-based monitoring system that is capable of acquiring and processing a variety of data including component level data, system level data, job level data and event level data from one or more electronic systems to develop and derive additional prediction, diagnosis and remediation methodologies and content for the electronic systems (Sampath et al., col. 2, lines 37-41 and lines 63-67).

Regarding claims 13-15, the teaching of Kekic further includes: wherein the configuration for the equipment is selected from a list of predetermined possible configurations (col. 15, lines 49-56; cols. 44-45, lines 58-8); wherein the rules are organized in a tree structure (col. 24, lines 20-28); wherein at least one of the rules includes an antecedent and a consequent (col. 49, lines 13-55; cols. 69-70, lines 7-6).

6.   Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kekic et al. in view of Sampath et al., as applied to claim 1 above, and further in view of Husseiny (U.S. Patent No. 5210704).

Regarding claim 2, Kekic et al. in view of Sampath et al. teach the system includes the subject matter discussed above except: wherein the at least one rule usable to predict exhaustion of the equipment includes a projected lifetime of the equipment.

Husseiny teaches a rule-based monitoring expert system, wherein the at least one rule usable to predict exhaustion of the equipment includes a projected lifetime of the equipment (col. 6, lines 9-19; col. 16, lines 38-56).

It would have been obvious to one having ordinary skill in the art at the time was made to include the teachings of Husseiny in the combination of Kekic et al. and Sampath et al. in order to provide a better rule-based monitoring system that is capable of examining the predictability of the system for predicting future trends and estimates of remaining life of an equipment based on statistical and model data analyses (Husseiny, Abstract; col. 6, lines 9-19; col. 16, lines 38-56).

7.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kekic et al. in view of Sampath et al. further in view of Husseiny, as applied to claims 1 and 2 above, and further in view of Pisello et al. (U.S. Pat. No. 5678042).

The combination of Kekic et al., Sampath et al. and Husseiny teaches a system that includes the subject matter discussed above except: wherein the at least one rule usable to predict exhaustion of the equipment includes a capacity of the equipment.

Pisello et al. disclose a network management system, and teach a program for creating one or more analytical reports about the monitor set, wherein at least one of the analytical reports details a relationship between demand and capacity for at least a

portion of the equipment (see Figs. 3A-B and 4A-B; col. 17, lines 19-43, lines 50-64 and

col. 21, lines 55-62).

It would have been obvious to one having ordinary skill in the art at the time the

invention was made to include the teaching of Pisello et al. analytical report in the

combination of Kekic et al., Sampath et al. and Husseiny in order to recognize a variety

of current status problems and perform various trend analysis on said equipment

(Pisello et al., col. 17, lines 19-21).

8.   Claims 4 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Kekic et al. in view of Jain et al. (U.S. Pat. No. 6225999) and Bergholm et al. (U.S.

Pat. No. 5761432).

Regarding claim 4, Kekic et al. teach a method for monitoring

telecommunications equipment (see abstract), the method comprising: selecting a

configuration for the equipment (see Figs. 37A-37E; col. 46, lines 36-52; col. 54, lines 5-

67 and col. 62, lines 7-9); obtaining equipment related data using a separate inventory

system (col. 8, lines 16-41; col. 15, lines 49-67; col. 18, lines 12-32, lines 45-55; col. 19,

lines 1-7; col. 28, lines 6-8 and col. 36, lines 15-27); requesting the retrieval of the

obtained data so that the data can be compared to the one or more rules (col. 8, lines

16-41; col. 15, lines 49-67; col. 18, lines 12-32, lines 45-55; col. 19, lines 1-7; col. 28,

lines 6-8 and col. 36, lines 15-27).

Kekic et al. do not mention expressly that: defining a review for the selected

configuration, the review identifying one or more rules usable to calculate exhaustion of

the equipment; obtaining equipment related data using a separate inventory system; and receiving a comparison of the data and the review.

Jain et al. disclose a system and method for network management (Abstract), including: defining a review for a selected configuration, the review identifying one or more rules usable to calculate exhaustion of network equipment (col. 5, lines 45-57; col. 7, lines 19-34); and receiving a comparison of the data and the review (col. 5, lines 35-51).

It would have been obvious to one having ordinary skill in the art at the time was made to incorporate the teachings of Jain et al. in the invention of Kekic et al. in order to provide a better rule-based monitoring expert system that permits the network manager to customize the reviewed information in a manner which limits it to that which is particularly useful to the manager and provides the flexibility to navigate to any given area of the network to obtain all information necessary to properly carry out management duties (Jain et al., col. 2, lines 31-38).

Bergholm et al. disclose a method and system for providing an efficient use of telecommunication network resources, and teach the step and means of obtaining equipment related data using a separate inventory system (see Abstract; Fig. 1; col. 1, lines 15-27; col. 2, line 64 to col. 3, line 5; col. 3, lines 30-45, lines 63-67; col. 5, lines 8-13; col. 7, lines 14-40 and col. 15, lines 42-50).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Bergholm inventory system in the Kekic

system in order to monitor the network equipments located in various control pointes more efficiently (Bergholm et al., col. 1, lines 15-27).

Regarding claims 7 and 8, the teaching of Kekic et al. further includes: said configuration is selected from a list of predetermined possible configurations (see Figs. 37A-37E and col. 37, lines 20-50; col. 50, lines 64-67 ad col. 51, lines 1-7); said step of identifying one or more rules comprises: selecting a rule from a rule tree according to a rule set definition (col. 23, lines 63-67 and col. 24, lines 20-28), the rule comprising an antecedent and a consequent (col. 6, lines 49-56; col. 69, lines 8-15); and modifying either or both of the antecedent and the consequent of the selected rule (col. 40, lines 34-67; col. 41, lines 1-3, lines 24-33, lines 63-67; col.42, lines 1-24).

Regarding claim 9, the Examiner takes official notice that an automatic email operation is a well-known practice in the art to communicate with a remote user. It would have been obvious to include such a feature in the method of Kekic et al. as one of the notification formats for the purpose of reporting said comparison results to remote users.

9.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kekic et al. in view of Jain et al. and Bergholm et al., as applied to claim 4 above, and further in view of Husseiny.

Regarding claim 6, Kekic et al. in view of Jain et al. and Bergholm et al. do not mention expressly: wherein the review further identifies a review interval and/or a notification preference and wherein the data can also be compared to the review interval and/or the notification preference.

The teaching of Husseiny includes: a review interval and/or a notification preference and wherein the data can also be compared to the review interval and/or the notification preference (cols. 10-11, lines 62-18; cols. 14-15, lines 64-2).

It would have been obvious to one having ordinary skill in the art at the time was made to include the teachings of Husseiny in the combination of Kekic et al., Jain et al. and Bergholm et al. in order to provide a better rule-based monitoring expert system that is capable of examining the predictability of the system for predicting future trends and estimates of remaining life of an equipment based on statistical and model data analyses (Husseiny, Abstract; col. 6, lines 9-19; col. 16, lines 38-56).

10.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kekic et al. in view of Jain et al. and Bergholm et al., as applied to claim 4 above, and further in view of Pisello et al.

Kekic et al. in view of Jain et al. and Bergholm et al. teach the method that includes the subject matter discussed above except: identifying at least one of a lifetime of the equipment and a capacity of the equipment.

Pisello et al. disclose a network management system, and teach a method for creating one or more analytical reports about the monitor set, including a step of identifying a capacity of the equipment (see Figs. 3A-B and 4A-B; col. 17, lines 19-43, lines 50-64 and col. 21, lines 55-62).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Pisello et al. analytical report in the combination of Kekic et al. Jain et al. and Bergholm et al., in order to recognize a variety

of current status problems and perform various trend analysis on said equipment

(Pisello et al., col. 17, lines 19-21).

11.   Claim 10-12, 16 and 18-20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kekic et al. in view of Sampath et al. and Pisello et al.

Regarding claim 10, Kekic et al. teach a system for monitoring equipment in a

telecommunications network (see abstract), comprising: a monitor set including at least

one of either a subset of the equipment (col. 6, lines 14-39), a review period (col. 18,

lines 19-32 and col. 20, lines 19-21), or a configuration for the equipment (col. 46, lines

36-52); a plurality of rules related to the monitor set (col. 23, lines 63-67 and col. 24,

lines 20-28); means for obtaining data related to the monitor set (col. 8, lines 16-41; col.

15, lines 49-67; col. 18, lines 12-32, lines 45-55; col. 19, lines 1-7; col. 28, lines 6-8 and

col. 36, lines 15-27); and a program for creating logging of pertinent information about

the monitor set based on the rules and the data (col. 7, lines 61-67; col. 8, lines 1-41;

col. 53, lines 57-67 and col. 54, lines 1-4).

Kekic et al. do not mention expressly: wherein at least one rule enables a

prediction of equipment exhaustion; said logging of pertinent information includes one or

more analytical reports about the monitor set based on the rules and the data; wherein

at least one of the one or more analytical reports details a relationship between demand

and capacity for at least a portion of the equipment.

Sampath et al. teach rule-based systems and methods for failure prediction and

diagnosis of electronic equipments in a network environment (Abstract), wherein the

rules include at least one rule usable to predict exhaustion of the equipment (col. 6,

lines 29-57); and a program for creating one or more analytical reports about a monitor set based on the rules and data related to the monitor set, wherein said one or more analytical reports include a prediction of exhaustion of the equipment (col. 6, lines 29-46; col. 9, lines 4-30).

It would have been obvious to one having ordinary skill in the art at the time was made to include the teachings of Sampath et al. in the invention of Kekic et al. in order to provide a better rule-based monitoring system that is capable of acquiring and processing a variety of data including component level data, system level data, job level data and event level data from one or more electronic systems to develop and derive additional prediction, diagnosis and remediation methodologies and content for the electronic systems (Sampath et al., col. 2, lines 37-41 and lines 63-67).

Pisello et al. teach a program for creating one or more analytical reports about a monitor set, wherein at least one of the analytical reports details a relationship between demand and capacity for at least a portion of the equipment (see Figs. 3A-B and 4A-B; col. 17, lines 19-43, lines 50-64 and col. 21, lines 55-62).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Pisello et al. analytical report in the invention of Kekic et al. in order to recognize a variety of current status problems and perform various trend analysis on said equipment (Pisello et al., col. 17, lines 19-21).

Regarding claim 11, Kekic et al. further teach: a graphical user interface for receiving additional rules from a user and for providing the additional rules to the

program (see Figs. 23-26; col. 6, lines 49-56; col. 40, lines 34-67; col. 41, lines 1-3,

lines 24-33).

Regarding claim 12, Kekic et al. further teach: said program comprises: an

inference engine having instructions for retrieving the data from a data layer of an

inventory retrieval system (col. 3, lines 9-28; col. 16, lines 55-60; col. 18, lines 12-32,

lines 45-55; col. 19, lines 1-7), determining if a match exists between the data and one

or more of the rules, and selectively firing the rule on the data to produce an analysis,

and to create the one or more analytical reports (col. 8, lines 16-41 and col. 36, lines 15-

27).

Kekic et al. do not mention expressly: wherein the one or more analytical reports

include a prediction of equipment exhaustion.

The teaching of Sampath et al. includes: wherein the one or more analytical

reports include a prediction of equipment exhaustion (col. 6, lines 29-57; col. 9, lines 24-

30).

It would have been obvious to one having ordinary skill in the art at the time was

made to include the teachings of Sampath et al. in the invention of Kekic et al. in order

to provide a better rule-based monitoring system that is capable of acquiring and

processing a variety of data including component level data, system level data, job level

data and event level data from one or more electronic systems to develop and derive

additional prediction, diagnosis and remediation methodologies and content for the

electronic systems (Sampath et al., col. 2, lines 37-41 and lines 63-67).

Regarding claims 16, 19 and 20, the teaching of Kekic further includes: wherein the configuration for the equipment is selected from a list of predetermined possible configurations (col. 15, lines 49-56; cols. 44-45, lines 58-8); wherein the rules are organized in a tree structure (col. 24, lines 20-28); wherein at least one of the rules includes an antecedent and a consequent (col. 49, lines 13-55; cols. 69-70, lines 7-6).

Regarding claim 18, Kekic et al. do not mention expressly: wherein the at least one rule usable to predict exhaustion of the equipment includes a capacity of the equipment.

Pisello et al. disclose a network management system, and teach a program for creating one or more analytical reports about the monitor set, wherein at least one of the analytical reports details a relationship between demand and capacity for at least a portion of the equipment (see Figs. 3A-B and 4A-B; col. 17, lines 19-43, lines 50-64 and col. 21, lines 55-62).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Pisello et al. analytical report in the logging of pertinent information taught by Kekic et al. in order to recognize a variety of current status problems and perform various trend analysis on said equipment (Pisello et al., col. 17, lines 19-21).

12.   Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kekic et al. in view of Sampath et al. and Pisello et al., as applied to claim 10 above, and further in view of Husseiny.

Regarding claim 17, Kekic et al. in view of Sampath et al. and Pisello et al. do not mention expressly that: wherein the at least one rule usable to predict exhaustion of the equipment includes a projected lifetime of the equipment.

Husseiny discloses a rule-based monitoring expert system, and teaches one or more analytical reports which include a prediction of exhaustion of the equipment and a projected lifetime of the equipment (col. 6, lines 9-19; col. 16, lines 38-56; col. 21, lines 14-41).

It would have been obvious to one having ordinary skill in the art at the time was made to include the teachings of Husseiny in the combination of Kekic et al., Sampath et al. and Pisello et al. in order to provide a better rule-based monitoring system that is capable of examining the predictability of the system for predicting future trends and estimates of remaining life of an equipment based on statistical and model data analyses (Husseiny, Abstract; col. 6, lines 9-19; col. 16, lines 38-56).

(10) Response to Argument

Applicants' arguments presented in the "Notice of Appeal" filed 09/05/2007 have been fully considered but they are not persuasive.

With respect to claim 1, Applicants argued that "the feature:

> *a program for creating one or more analytical reports*
>
> *about the monitor set based on the rules and the data,*
>
> *wherein the analytical report includes a prediction of*
>
> *exhaustion of the equipment, wherein the program includes:*

> *an inference engine having instructions for ... firing the rule*
>
> *on the data to produce an analysis and to create the one or*
>
> *more analytical reports*

is neither taught nor suggested by the combination of Kekic and Sampath." The

arguments are not persuasive. The Examiner's position is that, giving the claim the

broadest reasonable interpretation, the combination of Kekic and Sampath does

disclose or teach or suggest all the subject matter recited in claim 1 of the instant

application. The Examiner considers that Kekic discloses a program for creating logging

of pertinent information about a monitor set based on a plurality of rules and data

related to the monitor set (Kekic, cols. 7-8, lines 61-41; cols. 27-28, lines 44-8). Kekic's

disclosure is not clear about a program for creating one or more analytical reports about

a monitor set based on the rules and data, wherein said one or more analytical reports

include a prediction of exhaustion of the equipment. Sampath teaches a program for

creating one or more analytical reports about a monitor set based on the rules and data

related to the monitor set, wherein said one or more analytical reports include a

prediction of exhaustion of the equipment (Sampath, col. 6, lines 29-46; col. 9, lines 4-

30). The combination of Kekic with Sampath's teaching reads on the claim. It would

have been obvious to one having ordinary skill in the art at the time was made to

include the teaching of Sampath in the invention of Kekic in order to provide a better

rule-based monitoring system that is capable of acquiring and processing a variety of

data including component level data, system level data, job level data and event level

data from one or more electronic systems to develop and derive additional prediction,

diagnosis and remediation methodologies and content for the electronic systems, such

that the up-time of the equipments can be maximized by accurately predicting

degradations and managing the resulting repair process and customer downtime

impacts can be minimized, as suggested by Sampath (Sampath, col. 2, lines 37-41 and

lines 63-67; col. 3, lines 57-61). The combination of the references is therefore proper.

The rejections are maintained.

Appellants further argued that "[i]n particular, Sampath is not concerned with

prediction of equipment exhaustion; rather, it is concerned with prediction of equipment

failure. ..." The arguments are not persuasive either.

Give the broadest reasonable meaning to the terms "equipment exhaustion" as it

relates to life cycle, one having ordinary skill in the art would equate equipment failure

with the end of useful life. Otherwise stated equipment failure is an analogous concept

to equipment exhaustion to one having ordinary skill in the art. A review of the instant

disclosure does not relay a specific alternate definition to this term.

Further the Examiner's position is that, although Sampath does not mention

expressly "prediction of equipment exhaustion", the prediction and/or diagnostic

analysis of Sampath is based on a variety of analysis techniques including, but not

limited to, "threshold analysis, statistical analysis, signature analysis, trend analysis,

timing analysis, event sequence analysis, pattern analysis, image processing

techniques, quantitative and qualitative state estimation techniques, model based

diagnostic technologies, look-up tables, neural network based analysis, fuzzy logic

based analysis, a bayesian network, a causal network, a rule based system, expert

systems and other reasoning mechanisms". It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply Sampath's prediction and/or diagnostic analysis to predict equipment exhaustion as an intended use of Sampath's analysis techniques, as motivated by Sampath's teaching of prediction of equipment degradations (Sampath, col. 3, lines 57-61). It has been held that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

With respect to claims 4 and 10, in response to Applicants' argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the Applicants' disclosure, such a reconstruction is proper. *In re McLaughlin*, 443 F.2d 1392; 170 USPQ 209 (CCPA 1971).

In the case of claim 4, the Examiner considers that Kekic teaches the subject matter recited in claim except the features of: defining a review for the selected

configuration, the review identifying one or more rules usable to calculate exhaustion of

the equipment; obtaining equipment related data using a separate inventory system;

and receiving a comparison of the data and the review. The combination of Kekic with

Jain's teachings of defining a review for a selected configuration, the review identifying

one or more rules usable to calculate exhaustion of network equipment, and receiving a

comparison of the data and the review, and Bergholm's teachings of obtaining

equipment related data using a separate inventory system reads on the claim. It would

have been obvious to one having ordinary skill in the art at the time was made to

incorporate the teachings of Jain in the invention of Kekic in order to provide a better

rule-based monitoring expert system that permits the network manager to customize the

reviewed information in a manner which limits it to that which is particularly useful to the

manager and provides the flexibility to navigate to any given area of the network to

obtain all information necessary to properly carry out management duties; as motivated

by Jain (Jain et al., col. 2, lines 31-38); and it would have been obvious to one having

ordinary skill in the art at the time the invention was made to include the teaching of

Bergholm inventory system in the Kekic system in order to monitor the network

equipments located in various control pointes more efficiently, as motivated by

Bergholm (Bergholm et al., col. 1, lines 15-27). The combination of the references is,

therefore, proper. The rejections stand.

In the case of claim 10, the Examiner considers that Kekic teaches the subject

matter recited in claim except the features that: at least one rule enables a prediction of

equipment exhaustion; said logging of pertinent information includes one or more

analytical reports about the monitor set based on the rules and the data; wherein at

least one of the one or more analytical reports details a relationship between demand

and capacity for at least a portion of the equipment. The combination of Kekic with

Sampath's teachings of at least one rule usable to predict exhaustion of the equipment,

and a program for creating one or more analytical reports about a monitor set based on

the rules and data related to the monitor set, wherein said one or more analytical

reports include a prediction of exhaustion of the equipment, and Pisello's teaching of a

program for creating one or more analytical reports about a monitor set, wherein at least

one of the analytical reports details a relationship between demand and capacity for at

least a portion of the equipment reads on the claim. It would have been obvious to one

having ordinary skill in the art at the time was made to include the teachings of Sampath

in the invention of Kekic in order to provide a better rule-based monitoring system that is

capable of acquiring and processing a variety of data including component level data,

system level data, job level data and event level data from one or more electronic

systems to develop and derive additional prediction, diagnosis and remediation

methodologies and content for the electronic systems, as motivated by Sampath

(Sampath et al., col. 2, lines 37-41 and lines 63-67); and it would have also been

obvious to one having ordinary skill in the art at the time the invention was made to

include the teaching of Pisello analytical report in the invention of Kekic in order to

recognize a variety of current status problems and perform various trend analysis on

said equipment, as motivated by Pisello (Pisello et al., col. 17, lines 19-21). The

combination of the references is, therefore, proper. The rejections stand.

With respect to claim 10, Applicants further argued that "the feature:

> *a program for creating one or more analytical reports*
>
> *about the monitor set based on the rules and the data,*
>
> *wherein at least one of the analytical reports details a*
>
> *relationship between demand and capacity for at least*
>
> *a portion of the equipment*

is neither taught nor suggested by the cited combination of references", because "the Examiner's characterization of the teachings of Sampath, which is repeated verbatim in the rejection of claim 10, is in error". For the same reason as discussed for claim 1 above, Applicants' this argument is not persuasive. The combination of the references does disclose or teach or suggest all the subject matter recited in claim 10. The rejections stand.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Xiuqin Sun
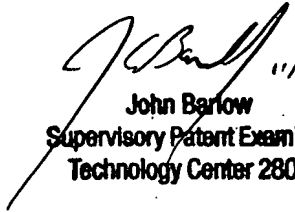
11/13/07

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